WHAT IS CLAIMED IS:

1. A method for calculating electromagnetic radiation, comprising:

determining the distance of a central processing unit from a heat sink;

determining a number of fins and a number of bars of the heat sink;

modeling characteristic radiation from the central processing unit as a modulated Gaussian pulse; and

estimating the electromagnetic field produced by the central processing unit using finite differences in time domain (FDTD) to solve Maxwell's equation.

2. The method as recited in claim 1, further comprising:

determining if the capacitive coupling exists between the heat sink and the central processing unit.

3. The method as recited in claim 1, further comprising:

reducing radiation noise by reducing capacitive coupling between the heat sink and the central processing unit.

4. The method as recited in claim 1, further comprising:

determining if inductive coupling exists between the heat sink and the central processing unit.

5. The method as recited in claim 1, further comprising:

reducing radiation noise by reducing inductive coupling between the heat sink and the central processing unit.

6. A method of designing a computer system, comprising:

determining the distance of a central processing unit from a heat sink;

determining a number of dins and a number of bars of the heat sink;

modeling the characteristic radiation from the central processing unit as a modulated Gaussian pulse; and

estimating the electromagnetic fields produced by the central processing unit using finite differences in the time domain (FDTD) to solve Maxwell's equation.

7. The method as recited in claim 6, further comprising:

reducing radiation noise by reducing capacitive coupling between the heat sink and the central processing unit.

8. The method as recited in claim 6, further comprising:

reducing radiation noise by reducing inductive coupling between the heat sink and the central processing unit.

9. The method of claim 6, further comprising:

using a fast Fourier transform to translate time domain data to frequency domain.

10. A method of manufacturing a computer system, comprising:

determining the distance of a central processing unit from a heat sink;

determining a number of dins and a number of bars of the heat sink;

modeling characteristic radiation from the central processing unit as modulated Gaussian pulse;

estimating the electromagnetic field-produced by the central processing unit using finite differences in a time domain (FDTD) to solve Maxwell's equation;

reducing radiation noise by reducing capacitive coupling between the heat sink and the central processing unit; and

reducing radiation noise by reducing inductive coupling between the heat sink and the central processing unit.

11. The method as recited in claim 10, further comprising:

using a fast Fourier transform to translate time domain data to frequency domain.

12. A computer program product encoded in computer readable media, the computer program product comprising:

a first set of instructions, executable on a computer system, configured to read data determining the distance of a central processing unit from a heat sink;

a second set of instructions, executable on a computer system, configured to model characteristic radiation from a central processing unit as a modulated Gaussian pulse; and

a third set of instruction, executable on a computer system, configured to estimate electromagnetic fields produced by the central processing unit using finite differences in a time domain to solve Maxwell's equation.

13. The method as recited in clam 12, further comprising:

a fourth set of instructions, executable on a computer system, configured to determine if capacitive coupling exists between the heat sink and the central processing unit.

14. The method as recited in clam 13, further comprising:

a fifth set of instructions, executable on a computer system, configured to determine if inductive coupling exists between the heat sink and the central processing unit.

15. The method as recited in claim 14, further comprising:

using a fast Fourier transform to translate time domain data to frequency domain.

16. A computer system, comprising:

a central processing unit,

a heat sink coupled to the central processing unit, the heat sink having fins and bars, the number and fins and the number of bars of the heat sink determined by:

determining the distance of a central processing unit from a heat sink;

determining a number of fins and a number of bars of the heat sink;

modeling characteristic radiation from the central processing unit as a modulated Gaussian pulse; and

estimating the electromagnetic field-produced by the central processing unit using finite differences in a time domain to solve Maxwell's equation.

17. A computer system as recited in claim 16, further comprising:

reducing radiation noise by reducing capacitive coupling between the heat sink and the central processing unit.

18. A computer system, comprising:

a central processing unit,

a heat sink coupled to the central processing unit, the heat sink having fins and bars, the number and fins and the number of bars of the heat sink determined by:

determining the distance of a central processing unit from a heat sink;

determining a number of dins and a number of bars of the heat sink;

modeling characteristic radiation from the central processing unit as modulated Gaussian pulse;

estimating the electromagnetic field-produced by the central processing unit using finite differences in a time domain to solve Maxwell's equation; and

reducing radiation noise by reducing inductive coupling between the heat sink and the central processing unit.

19. A computer system as recited in claim 18, further comprising:

using a fast Fourier transform to translate time domain data to frequency domain.

20. A heat sink for a computer system, the heat sink coupled to a central processing unit, the heat sink having fins and bars, the number of fins and the number of bars of the heat sink determined by:

determining the distance of a central processing unit from a heat sink;

determining a number of fins and a number of bars of the heat sink;

modeling characteristic radiation from the central processing unit as modulated Gaussian pulse; and

estimating the electromagnetic field-produced by the central processing unit using finite differences in a time domain to solve Maxwell's equation.